

Wayne E. Jones Jr.

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Education

Ph.D., Inorganic Chemistry; Thesis Advisor: Prof. Thomas J. Meyer
University of North Carolina-Chapel Hill, December 1991
Thesis title: Intramolecular Electron and Energy Transfer Processes in Transition Metal
Based Chromophore-Quencher Assemblies

B.S., Chemistry (with honors)
St. Michael's College, Colchester, VT, 1987

Administrative Experience

2013-present Chair, Chemistry Department, Binghamton University

2009-2012

- Managed research and teaching activities for a department with an overall budget of \$2.4M including salaries plus research expenditures of more than \$3.4M annually. Growing to a staff of 9 and growing the faculty to 23 including 19 research faculty and 4 instructors/lecturers in the last 5 years.
- Led creation of the latest 5 year strategic plan for the department including new interdisciplinary biological chemistry thrust and addition of a new NSF EFRC in energy storage in 2014.
- Worked with faculty and administration to design and fund new building design for chemistry and physics. Broke ground on this \$70M new 110,000 sq ft building in August 2014 with planned building opening in early 2017.
- Established new Chemistry Alumni Advisory Board and worked with alumni to establish two new endowed programs for department. Currently working with alumni to initiate a grass roots funding effort for outfitting the new chemistry building through initiation of a \$1M capital gifts campaign.
- Increased department alumni giving by 300 percent through outreach to alumni, creation of new department newsletter and development of the alumni distinguished lecture series.
- Oversaw \$12M renovation of teaching laboratories and worked with facility team to advance renovation of two additional research laboratories and acquisition/installation of National Science Foundation-sponsored regional NMR facility.

2012-2013 Interim Dean, Harpur College of Arts and Sciences, Binghamton
University

- Led the dynamic faculty and staff from the college's 26 departments and 14 programs in the humanities, fine arts, social science and science areas.
- Oversaw all college management including \$54.2M budget allocation, curriculum for the 9,250 graduate and undergraduate students, hiring and support for 371 faculty and

the addition 26 new faculty and 34 approved searches in the college, as well as infrastructure/building projects.

- Enhanced college communication with alumni and friends including creation of a new quarterly newsletter and support for department newsletters and website development.
- Engaged and increased the alumni involved with the Harpur College Advocacy Council, Judaic Studies Council, Asian and Asian American Council, and Law Council. With their support and working closely with departments, organized the new Harpur Excellence Initiative to increase annual giving to the college.
- Grew international partnerships in support of faculty-initiated programs for student recruitment, faculty and student exchange, and creative and scholarly activities.
- Restructured Dean's office to enhance faculty development for new faculty and creation of professional masters programs.

2013-Present Chair, Transdisciplinary Areas of Excellence (TAE) Committee in Smart Energy

- Coordinating chair of the five Transdisciplinary Areas of Excellence (see Binghamton.edu/tae). This interdisciplinary effort seeks to provide new collaborations between faculty and department leading to increased scholarship and external funding opportunities.
- Led intercollege cluster hiring initiative for the campus in the area of Smart Energy.
- Developed and managed internal grant program to catalyze new research teams of faculty working in smart energy.
- Ran the successful NSF-REU program for undergraduate students in Smart Energy and served as PI on successful NSF and Department of Education grants in support of fellowships and scholarships for women and underrepresented groups in Science and Engineering around the theme of Smart Energy.
- Created with colleagues in Biological Sciences and Neuroscience, the first Freshman Research Immersion program track in Smart Energy with grants from HHMI and NY State.

2007, 2008 Interim Chair, Chemistry Department, Binghamton University

- Managed summer curricular planning, research training and TA orientation.

2001-2006 Deputy to the President and Director of Special Programs

- Coordinated faculty award nominations and packages for promotion to the distinguished professor rank.
- Worked with all University divisions on emergency management communications and problem solving.
- Worked with the Deans and Provost on curricular planning, the University academic calendar, and student issues on behalf of the President's Office.
- Led the Student Success Commons initiative to explore a one-stop advising and mentoring system for the University.
- Represented the University on the Faculty Access to Computing Technologies (FACT) committee of the SUNY Vice-Chancellor and Provost's office.

- Participated in leadership team that guided the design and creation of the Innovative Technologies Complex.

1996-2009 Founding Director, Center for Learning and Teaching

- Assisted faculty and staff in submission of over \$15M in federal, state and private foundation grants.
- Established the student excellence fee to provide for independent support of the tutoring center.
- Led a team of faculty colleagues in the creation and institutionalization of the Institute for Student-Centered Learning, which provides programming to help faculty become better teachers, engage more effectively with students and explore best practices in the use of technology.
- Served as executive committee member for two university undergraduate task forces in 2000 and 2009, including leadership team creating the student advising and mentoring network.

Academic Experience

2007-present Professor of Chemistry, Binghamton University
1999-2006 Associate Professor of Chemistry, Binghamton University
2000 Visiting Professor, University of Pennsylvania
1993-1999 Assistant Professor of Chemistry, Binghamton University
1992-1993 Post-Doctoral Fellow, University of Texas at Austin (Prof. M. A. Fox)
1988-1991 Research Assistant, University of North Carolina at Chapel Hill
1987-1988 Director of General Chemistry Tutor program, UNC-Chapel Hill

Awards and Affiliations

E. Ann Nalley ACS Northeast Region Award for Volunteer Service, 2015
Technology Innovation Entrepreneur of the Year (Chromanotech, W. Bernier), 2015
Grace Van DerVoort Distinguished Lecture, Sage College, 2015
Fellow of the American Chemical Society, 2010
Editorial Board, *Fibers*, 2012-present
Associate Editor, *Journal of Educational Technology Systems*, 2009-present
Golden Key Honorary Faculty Award, 2005
Chancellor's Award for Excellence in Teaching, State University of New York, 2001
University Award for Excellence in Teaching, Binghamton University, 2001
Distinguished Service Award, Binghamton Section, American Chemical Society, 1999
Who's Who Among America's Teachers, 1998
Phi Eta Sigma Teaching Award, 1996
Dean's Research Semester, 1996
Nominated for Presidential Faculty Fellowship Award, 1995
NIH Postdoctoral Fellowship (declined), 1993
Sigma Xi Scientific Research Society
American Chemical Society
 Inorganic Division

Polymer Division
Chemical Education Division
American Association for the Advancement of Science

Research and Teaching Interests

My research group's interests involve the study of photo-induced electron and energy transfer processes in inorganic and polymer systems. By combining novel synthetic strategies with modern electrochemical and spectroscopic techniques, we gain a better understanding of fundamental processes which occur in all of chemistry including electron transfer, energy transfer, excited state reactivity, and materials design at a molecular level. The focus of our efforts is the design and study of molecular wires and devices. These nanomaterials provide a foundation for fundamental investigations as well as opportunities for new applied technologies. The projects briefly outlined below fall into three areas under the theme of molecular wires and devices. They are or have been supported by grants from DOD, ACS-PRF, NIH, NSF, SRC, NIST, NNSA, ONR, New York State Center for Advanced Technology (IEEC), NASA, and industrial partners.

The first targeted area of interest involves application of electronic and photonic polymers to specific devices such as sensors. We have prepared a series of fluorescent polymer chemosensor materials which take advantage of electronic communication along the conjugated polymer molecular wire to provide enhanced detection of nanomolar quantities of transition metals in solution. Initially supported by the National Institutes of Health, we are preparing more reversible and water sensitive versions of this exciting new class of materials. Of particular interest is the non-linear quenching response in these polymers, which make them significantly more sensitive than monomeric sensors. We have developed a unique mathematical model that incorporates both static quenching and dynamic energy transfer. Fitting of the fluorescence quenching data allows distinction between Dexter and Forster energy transfer mechanisms. The synthetic strategy allows for variations in the receptor, receptor loading, and polymer backbone conjugation. Recent work has involved design of more selective receptors based on hemi-labile ligands. This also involves detailed photophysical investigations of a series of transition metal complexes based on this flexible Lewis basic ligand. We have also developed a new class of conjugated polymers that "turn-on" their fluorescence in the presence of specific analytes. This work was published in the *Journal of the American Chemical Society (JACS)*, one of the most prestigious journals in chemistry.

The second area of emphasis involves the design of conducting molecular wires which continues to be a fascinating target of chemistry, physics, and materials science. We have been exploring the use of self assembled monolayers to modify the behavior of in situ deposited conducting polymer films. We have demonstrated for the first time that closely packed transition metal complexes enhance the intermolecular interactions of conducting polymers during the in situ deposition process. The result is electrically conductivities that are 1 to 2 orders of magnitude greater than typical in situ or spin coating preparations. We can apply the same technology to vapor deposited thin films and inorganic/organic hybrid architectures for photovoltaics and solar energy conversion.

The final area of emphasis focuses on applying a non-mechanical electrostatic polymer processing procedure to prepare nanofibrous materials with diameters of < 100 nm. Nanofibers

have been prepared ranging from conducting polymers, polymer blends, and layered composite materials of metals, metal oxides, and conducting polymers. We have demonstrated the application of these materials as thermal interface materials for electronics, nanostructured sensors, and most recently photocatalysts for the degradation of chemical warfare agents and other environmental toxins.

My teaching philosophy requires a curriculum that provides students with relevant, active learning environments to foster the development of critical thinking and problem-solving skills. These skills are crucial both for the scientific researcher when solving chemical problems and for the general population that is increasingly faced with choices on technology, the environment, and the natural world. In chemistry, this can be achieved by combining high-quality research with interactive classroom discussions of contemporary scientific problems and theories. As director of the Center for Learning and Teaching, my interests concentrate on the evaluation and effective use of technology in the classroom. These teaching interests involve long-term curriculum development in chemistry, including more expanded use of technology in introductory chemical education, use of interactive multi-media materials for self-directed learning, and the design of new advanced undergraduate laboratories based on the guided inquiry approach. As PI or co-PI on several grants from NSF, I have worked with different teams of faculty and graduate students to implement new advanced laboratories in inorganic and materials chemistry, introduce into the undergraduate curriculum scanning probe microscopies including AFM and STM, and create learning activities to introduce nanotechnology to an interdisciplinary group of courses in chemistry, physics, biology, and engineering.

Publication List

Wayne E. Jones Jr.

1. "Photochemistry of Hetero- Tris- Chelated Ruthenium(II) Polypyridine Complexes in Dichloromethane." W. E. Jones Jr., R. A. Smith, M. T. Abramo, M. D. Williams, J. Van Houten, *Inorg. Chem.*, 1989, 28, 2281.
2. "Intramolecular Energy Transfer in A Chromophore-Quencher Complex." S. Boyde, G. F. Strouse, W. E. Jones Jr., T. J. Meyer, *J. Am. Chem. Soc.*, 1989, 111, 7448.
3. "Intramolecular Triplet-Triplet Annihilation in Excited Polymethylene Linked Tris(2,2'-4-bipyridine)Ruthenium(II) Complex Dimers and Polymers." M. Furue, T. Yoshidzumi, N. Kuroda, S. Nozakura, M. Kamachi, T. Ohno, W. E. Jones Jr., T. J. Meyer, *Polymer Science, Japan*, 1989, 38, 1817.
4. "Effect on MLCT Excited States of Electronic Delocalization in the Acceptor Ligand." S. Boyde, G. F. Strouse, W. E. Jones Jr., T. J. Meyer, *J. Am. Chem. Soc.*, 1990, 112, 7395.
5. "Energy and Electron Transfer Shuttling by a Soluble, Bifunctional Redox Polymer." J. N. Younathan, W. E. Jones Jr., T. J. Meyer, *J. Phys. Chem.*, 1991, 95, 488.
6. "Energy Transfer in the Inverted Region." Z. Murtaza, A. P. Zipp, L. A. Worl, D. K. Graff, W. E. Jones Jr., T. J. Meyer, *J. Am. Chem. Soc.* 1991, 113, 5113.

7. "Photoinduced Electron and Energy Transfer in Soluble Polymers." S. M. Baxter, W. E. Jones Jr., E. Danielson, L. A. Worl, G. F. Strouse, J. Younathan, T. J. Meyer, *Coord. Chem. Rev.* 1991, *111*, 47-71.
8. "Intramolecular Electron Transfer in Rigid Media at Room Temperature." W. E. Jones Jr., P. Chen, T. J. Meyer, *J. Am. Chem. Soc.*, 1992, *114*, 387.
9. "Long-Range Electron and Energy Transfer in Molecular Assemblies." W. E. Jones Jr., S. M. Baxter, S. L. Mecklenburg, B.W. Erickson, B. M. Peek, and T. J. Meyer, in NATO ASI Series, Kluwar, 1992.
10. "Intramolecular Electron Transfer in a Chromophore-Donor-Acceptor Complex." W. E. Jones Jr., C. A. Bignozzi, P. Y. Chen, T. J. Meyer, *Inorganic Chemistry*, 1993, *32*(7), 1167.
11. "Photophysical and Photochemical Behavior of Nitro Complexes of Ruthenium(II)." C. A. Bignozzi, C. Chiorboli, W. E. Jones Jr., Z. Murtaza, T. J. Meyer, *Inorganic Chemistry*, 1993, *32*(6), 1036.
12. "Light Harvesting Polymer Assemblies." M. A. Fox, W. E. Jones Jr., D. M. Watkins, *Chemical and Engineering News*, March 15, 1993, 38-48.
13. "Intramolecular Electron and Energy Transfer Between Metal Complexes on a Soluble Polymer." W. E. Jones Jr., S. M. Baxter, G. F. Strouse, T. J. Meyer, *J. Am. Chem. Soc.*, 1993, *115*, 7363.
14. "Kinetics of Ethyltrimethoxysilane Hydrolysis in a Fast Sol-Gel System: The Influence of Steric Effects." R. C. Chambers, W. E. Jones Jr., Y. Haruvy, S. E. Webber, M. A. Fox *Chem. Mater.* 1993, *5*, 1481.
15. "Role of contact and solvent-separated radical ion pairs in the diffusional quenching of trans-stilbene excited singlet state by fumaronitrile." K. Krosley, W. Jones Jr., M.A. Fox, *Chemtracts: Org. Chem.*, 1993, *6*, 27.
16. "Energy Transfer in the Inverted Region: Calculation of Relative Rate Constants by Emission Spectral Fitting." Z. Murtaza, A. P. Zipp, L. A. Worl, D. K. Graff, W. E. Jones Jr., T. J. Meyer, *J. Phys. Chem.* 1994, *98*, 7113.
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18. "Influence of Electronic Delocalization in Metal-to-Ligand Charge Transfer Excited States." G. F. Strouse, J. R. Schoonover, R. Duesing, S. Boyde, W. E. Jones, Jr., T. J. Meyer, *Inorg. Chem.*, 1995, *34*, 473.

19. "Spectroscopy and Time-dependent Photovoltaic Responses in Ordered Porphyrin Thin Films." M. A. Fox, H.-L. Pan, W.E. Jones Jr., D. Melhamed, *J. Phys. Chem.* 1995, 99, 11523.
20. "Matrix Stabilization of Excited States." D.W. Thompson, E. Danielson, W.E. Jones Jr., T. J. Meyer, *J. Phys. Chem.* 1995.
21. "An Electronic Curriculum for Introductory Chemistry." J.A. Dix, R.D. Allendoerfer, W.E. Jones Jr., R.A. Lacey, B.J. Laurenzi, *J. Ed. Tech. Sys.* 1995, 24, 151.
22. "Direct Electrochemical Investigations of 17-Electron Complexes of CpM(CO)₃ (M = Mo, W, Cr)." D. Barbini, P.S. Tanner, K. Furst, T. Francone, W.E. Jones, Jr., *Inorg. Chem.* 1996, 35, 4017.
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26. "Toward Transparent Molecular Wires: Electron and Energy Transfer in Transition Metal Derivatized Conducting Polymers" B. Jiang, S. Yang, S. Bailey, L. Hermans, R. Niver, M. Bolcar, W. E. Jones Jr., *Coord. Chem. Rev.*, 1998, 171, 365.
27. "Synthesis and Characterization of [Cp³ⁱM(CO)₃]₂ (M = Mo and W; Cp³ⁱ = 1,2,4-Triisopropylcyclopentadienyl Ligand). X-ray Crystal Structure of [Cp³ⁱMo(CO)₃]₂." P. Tanner, D. Barbini, W.E. Jones, Jr., *Inorg. Chem.*, 1997, 36(27), 6457.
28. "Metalloporphyrin Polymers Bridged With Conjugated Cyano-Substituted Stilbene Units." B. Jiang, S.-W. Yang, R. Niver, W.E. Jones Jr., *Synthetic Metals*, 1998, 94(2), 205.
29. "Synthesis of Soluble Conjugated Metalloporphyrin Polymers with Tunable Electronic Properties." B. Jiang, W. E. Jones Jr, *J. Chem. Soc. Chem. Comm.*, 1998, 1, 213-214.
30. "Conjugated Polymers Containing Pendant Terpyridine Complexes As Photoactive Sensors." B Jiang, S. Sahay, W. E. Jones Jr., *Mat. Res. Soc. Proc.*, 1998, 671.
31. "Design and Synthesis of New Conjugated Porphyrin Copolymers for Optical-Electronic Applications." B. Jiang, S.-W. Yang, P. T. Lam, W. E. Jones Jr., *Mat. Res. Soc. Proc.*, 1998, 323.

32. "Excited State Competition in fac-[Re^I(dppz)(CO)₃(py-PTZ)]⁺" W. Doug Bates, P. Chen, D. M. Dattelbaum, W.E. Jones Jr., T. J. Meyer *J. Phys. Chem. A* 1999, *103*, 5227.
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36. "Metal-Organic Conducting Polymers: Photoactive Switching in Molecular Wires," W. E. Jones Jr., L. H. Hermans, B. Jiang, in *Molecular And Supramolecular Photochemistry: Vol. 2*, V. Ramamurthy, K. S. Schanze Eds., Marcel Dekker: New York, 1999, 1-29.
37. "Self-Assembled Molecular Architectures: New Strategies Involving Metal-Organic Copolymers." D. M. Sarno, B. Jiang, D. Grosfeld, J. Afriyie, L. J. Matienzo, W. E. Jones, Jr., *Langmuir*, 2000, *16*(15), 6191-6199.
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43. "Uniform thin films of poly-3,4-ethylenedioxythiophene (PEDOT) prepared by in-situ deposition." Dirk Hohnholz, Alan G. MacDiarmid, David M. Sarno, Wayne E. Jones, Jr., *J. Chem. Soc. Chem. Comm.*, 2001, 2444-2445.
44. "Selective Detection of Transition Metal Ions by an Array of Functionalized Fluorescent Conjugated Polymer Chemosensors." Wayne E. Jones Jr., Clifford B. Murphy, Yan Zhang, Vivian Ferry, Scott Gilje, *Advanced Environmental Sensing II, Proc. SPIE-Int. Soc. Opt. Eng.*, 2002, 4576, 10-18.
45. "Photophysical Effect of the Coordination of Water by Ru(II) Bipyridyl Complexes Containing Hemilabile Phosphine-ether Ligands." Cerrie W. Rogers, Yan Zhang, Brian O. Patrick, Wayne E. Jones, Jr. and Michael O. Wolf, *Inorganic Chemistry*, 2002, 41, 1162-1169.
46. "Poly[*p*-(phenyleneethynylene)-*alt*-(thienyleneethynylene)] (**PPETE**) Polymers with Oligo-pyridine Pendant Groups: Highly Sensitive Chemosensors for Transition Metal Ions." Yan Zhang, Clifford B. Murphy, Wayne E. Jones Jr., *Macromolecules*, 2002, 35(3), 630.
47. "New Crystal Structures in a Bipyridine-Copper(II) Nitrate Methanol System: [(bpy)Cu(NO₃)₂]." Peter Y. Zavalij, Benjamin L. Burton, Wayne E. Jones, Jr. *Acta Cryst C*, 2002, C58, 330-333.
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49. "Nanowire and Nanotube Materials Prepared from Polymer Fiber Templates." Hong Dong, Verrad Nyame, and Wayne E. Jones Jr., *Mat. Res. Soc. Proc.*, 2003, Vol. 739, 217-222.
50. "Atomic Scale Imaging: A Hands-On Scanning Probe Microscopy Laboratory for Undergraduates." Chuan-Jian Zhong, Li Han, Mathew M. Maye, Jin Luo, Wayne E. Jones Jr., *J. Chemical Education*, 2003, 80(2), 194-197.
51. "Chemical and Biological Protection and detection in Fabrics for Protective Clothing," Heidi Gibson, Quoc Truong, John Walker, Jeffery Owens, Joseph Wander, and Wayne E. Jones Jr., *Materials Research Bulletin*, 2003, 28(8), 574-578.
52. "Direct Observation of Antifreeze Glycoprotein-Fraction 8 on a Hydrophobic and Hydrophilic Surface Using Atomic Force Microscopy," David M. Sarno, Evan S. DiVirgilio, Anastasia V. Murphy, Wayne E. Jones, Jr. and Robert N. Ben, *Langmuir*, 2003, 19(11), 4740-4744.

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60. "Nanosized Metal Tubes from Electrospun Fiber Templates," Frederick Ochanda, Wayne E. Jones Jr., *Langmuir*, 2005, 21, 10791-10796.
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2. “Hybrid Nanomaterials and Photocatalysis for Removing Environmental Toxins and Chemical Warfare Agents,” Natick Army Research Labs, Natick, MA, 2015.
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72. "Nanotechnology Applications for Sensors, Electronics, and Undergraduate Education," Russell-Sage College, Troy, NY, 2006.*
73. "Fluorescence Turn-on Conjugated Polymer Chemosensors Based on Inorganic-Organic Hybrid Structures," University of Northern Colorado, Greeley, CO, 2006.
74. "Fluorescence Turn-on Conjugated Polymer Chemosensors Based on Inorganic-Organic Hybrid Structures," PACIFICHEM, Honolulu, HI, 2005.
75. "Fluorescence Turn-on Chemosensors based on Conjugated Polymers," Siena College, Albany, NY, 2005.*
76. "Molecular Wires and Devices: New Materials for Sensors and Nanoelectronics," Ohio University, Athens Ohio, 2005.
77. "Design and Synthesis of Nanofibers and Nanotubes for Electronics, Sensors, and Catalysts," Dupont, Richmond, VA, 2005.
78. "Conjugated Polymer Chemosensors for Environmental Applications," Lebanon Valley College, Lebanon, PA, 2005.*
79. "Approaches to Integrating Research, Scholarship, and Technology into the Curriculum," Emerging Technologies Symposium, University of Northern Colorado, Greeley, CO, 2005.
80. "Molecular Wire Chemosensors for the Environment," Lamar University, Beaumont, TX, 2004.
81. "Molecular Wires and Tubes: New Approaches to Thermally Conducting Materials." Rensselaer Polytechnic Institute, Troy, NY, 2004.
82. "Photochemistry and Photophysics of Hemi-labile Ligand Complexes: New Receptors for use in Fluorescent Conjugated Polymer Sensors," International Society of Photochemistry and Photophysics (ISPPCC), Hong Kong, China, 2004.
83. "Investigation of Communication Along Conjugated Backbones of Chemosensor Devices," American Chemical Society Meeting, Anaheim, CA, 2004.
84. "Conjugated Polymer Chemosensory Materials: Detection of Transition Metal Ions via Fluorescence Quenching," American Chemical Society Meeting, Anaheim, CA, 2004.

85. "Nanotechnology in Undergraduate Education: An Interdisciplinary Module Approach," American Chemical Society Meeting, Anaheim, CA, 2004.
86. "Nanowires and Nanotubes: Molecular Design and Synthesis of New Materials for Electronics and Sensors," Temple University, Philadelphia, PA, 2004.
87. "Design, Synthesis, and Application of Molecular Wires and Devices for Nanoscale Molecular Electronics," Drexel University, Philadelphia, PA, 2004.
88. "Molecular Wires and Devices for Electronics," Colgate University, Hamilton, NY, 2003.*
89. "Nanoscale Electronic Fibers and Tubes: New Materials for Electronics Applications, American Chemical Society National Meeting, New York, NY, 2003.
90. "Design, Synthesis, and Characterization of Molecular Wires and Nanotubes for Electronic Applications," Clarkson University, 2003.
91. "Design, Synthesis, and Characterization of Molecular Wires and Nanotubes for Electronic Applications," SUNY Potsdam, NY, 2003.*
92. "Design, Synthesis, and Characterization of Molecular Wires and Nanotubes for Electronic Applications," St. Lawrence University, 2003.*
93. "Nanostructure Enhanced Thermal Interface Materials," University of California, Los Angeles, 2003.
94. "Molecular Wires and Thin Film Materials for Electronic Device Applications," University of Pennsylvania, Philadelphia, PA, 2003.
95. "Conducting Molecular Wires: Nanotubes and Nanofibers for Electronic Applications," ANTEC, Nashville TN, 2003.
96. "Molecular Wires and Devices," Boston University, Boston, MA, 2002.
97. "Techniques for Studying Solids: An On-line Approach to Just in Time Learning for Materials Characterization," Materials Research Society National Meeting, Boston, MA, 2002.
98. "Introducing Scanning Probe Microscopy into the Advanced Laboratory Curriculum," American Chemical Society Meeting, Boston, MA, 2002.
99. "Optical Fiber Sensors for Detection of Toxic Nerve Agents," DOD MURI Program, North Carolina State University, Raleigh, NC, 2002.
100. "Student Centered Learning Strategies in Higher Education," Howard University, Washington, DC, 2002.
101. "Fluorescent Polymer Chemosensors and Devices," St. Michael's College, Winooski, VT, 2002.*
102. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," University of North Carolina, Charlotte, NC, 2001.
103. "Inorganic-Organic Hybrid Materials: New Approaches to Molecular Wires and Devices," Reed College, Portland, OR, 2001.*
104. "Chemosensors and Molecular Wires," George Fox University, Newburgh, OR, 2001.*
105. "New Materials for Chemosensors and Nanoscale Molecular Devices," Linfield College, Linfield, OR, 2001*
106. "Photoswitching of Conducting Polymers using Transition Metal Complexes," Santa Fe Scientific, Santa Fe, NM, 2001.
107. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," Inorganic Chemistry into the New Millenium, Santa Fe, NM, 2001.
108. "Chemical Degredation Paths of Underfill Materials," Universal Consortium Meeting, Binghamton, NY, 2001.

109. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," Sandia National Laboratories, Sandia, NM, 2001.
110. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," Roger Williams University, Providence, RI, 2001. *
111. "Organic Nanofibers: Single Fiber Electronic Characterization," Pacificchem, Honolulu, HI, 2000.
112. "Organic Nanofibers: Single Fiber Electronic Characterization," Materials Research Society National Meeting, Boston, MA, Rqll 2000.
113. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," SUNY Potsdam, Potsdam, NY, 2000. *
114. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," St. Lawrence University, Potsdam, NY, 2000. *
115. "Molecular Wires and Devices: New Materials for Chemosensors and Nanoscale Molecular Electronics," Colgate University, Hamilton, NY, 2000. *
116. "New Approaches to Metal-Organic Conjugated Polymers," Shippensburg State University, PA, 2000. *
117. "Self-Assembly of Metal-Organic Conjugated Polymers for Electronic and Photonic Applications," Clarkson University, 2000.
118. "Self-Assembly of Metal-Organic Conjugated Polymers for Electronic and Photonic Applications," Hunter College (CUNY), 2000.
119. "Highly Fluorescent Chemosensor Polymers for Transition Metal Detection," University of Pennsylvania, 2000.
120. "Assembly of Metal-Organic Conjugated Polymers for Electronic and Photonic Applications," Fordham University, NY, 1999. *
121. "Assembly of Metal-Organic Conjugated Polymers for Electronic and Photonic Applications," Ithaca College, Ithaca, NY, 1999. *
122. "Assembly of Metal-Organic Conjugated Polymers for Electronic and Photonic Applications," St. Michael's College, Winooski, VT, 1999. *
123. "Metal Organic Polymers for Electronic and Photonic Applications," Syracuse University, Syracuse, NY, 1999.
124. "Metal Organic Polymers for Electronic and Photonic Applications," Rider University, NJ, 1999. *
125. "Molecular Architectures for Studying the Photophysical Properties of Inorganic-Organic Hybrid Polymers," ACS National Meeting, Anaheim, CA, 1999.
126. "Student Learning Styles and Perceived Effectiveness of the World Wide Web in Learning Introductory Chemistry," American Chemical Society, Albany, NY, 1999.
127. "Student Learning Styles and Perceived Effectiveness of the World Wide Web in Learning Introductory Chemistry," SUNY-Oneonta, 1999.
128. "Metal Containing Conjugated Polymers: New Materials for Explosives Detection and Mobile Armor Circuit Stabilization," U.S. Military Academy, West Point, NY, 1998. *
129. "Electronic Materials for Photochemical Applications: Hybrid Inorganic-Organic Polymers," SUNY-Oswego, Oswego, NY, 1998. *
130. "Metal Containing Conjugated Polymers for Photonic Applications," University of Rochester, Rochester, NY, 1998.
131. "Conjugated Inorganic-Organic Hybrid Polymers: Design of Molecular Architectures for Electronic and Photonic Applications," New York University, New York, NY, 1998.

132. "Conjugated Inorganic-Organic Hybrid Polymers for Photonic Applications: Molecular Wires to LEDs," University of Delaware, Newark, DE, 1998.
133. "Conjugated Porphyrin Polymers: Light Harvesting to Molecular Wires," University of Pennsylvania, Philadelphia, PA, 1998.
134. "Conjugated Porphyrin Polymers: Light Harvesting to Molecular Wires," Johns Hopkins University, Baltimore MD, 1998.
135. "Science Across the Curriculum: Science Specific Issues and Distance Learning Challenges," Wellspring Inc., On-line Event, 1998.
136. "A New Paradigm in Science Education: Science Across the Curriculum," NSF Systemic Change Workshop, Northeastern University, 1998.
137. "New Materials for Optical Switching and Light Harvesting," Vassar College, NY, 1998.
138. "New Materials for Optical Switching and Light Harvesting," Juniata College, PA, 1997.
139. "Artificial Photosynthesis: New Materials for Optical Switching and Light Harvesting," SUNY-Brockport, Brockport, NY, 1997. *
140. "A New Paradigm in Science Education: Science Across the Curriculum," AAHE Fall meeting, Washington, D.C., 1997.
141. "Electron Transfer Models for Biological Systems," Sigma Chemical Company, St. Louis, MO, 1997.
142. "Student Learning Styles and Multimedia: R & D for an On-Line General Chemistry Curriculum," HVCC Multimedia in Chemistry Conference, Albany, NY, 1997.
143. "Simulation in the Science Curriculum," EnginNet Research Symposium, Binghamton, NY, 1997.
144. "Photoinduced Electron Transfer in Extended Molecular Systems: New Materials for Optical Switching and Light Harvesting," RPI, Troy, NY, 1997.
145. "New Materials for Optical Switching and Light Harvesting," Syracuse Section of the American Chemical Society, Syracuse, NY, 1997.
146. "Molecules to Materials: An Easily Adopted Approach to the Guided Inquiry Laboratory Format," Spring ACS National Meeting, San Francisco, CA, 1997.
147. "Using Internet Based Resources in General Chemistry Education," Spring ACS National Meeting, San Francisco, CA, 1997.
148. "Textbooks and Web Pages," BOCES Technology Association, Spring 1997.
149. "Multimedia and the Internet in Science Education: Science Across the Curriculum," Engineering Educators Symposium, Binghamton University, 1996.
150. "Photoinduced Electron Transfer in Extended Molecular Systems: New Materials for Optical Switching and Light Harvesting," University of Sherbrooke, Sherbrooke, Canada, 1996.
151. "Tales From the Front Lines: Design of a Multi-Media Internet Course for Introductory Chemistry," Conference on Instructional Technologies, SUNY-Oswego, May, 1996. *
152. "The Design of Molecular Assemblies for Light Harvesting and Artificial Photosynthesis," Union College, Schenectady, NY, 1996. *
153. "Photoinduced Electron Transfer in Extended Molecular Systems: New Materials for Optical Switching and Light Harvesting," Concordia University, Montreal, Canada, 1996.
154. "Organometallic Photochemistry and Electron Transfer: New Information for the Design of Electron Transfer Catalysts," University of Montreal, Canada, 1996.
155. "Photoinduced Electron Transfer in Extended Molecular Systems: New Materials for Optical Switching and Light Harvesting," University of Vermont, Burlington, VT, 1996.

156. "The Design of Molecular Assemblies for Light Harvesting and Artificial Photosynthesis," Meeting of the Vermont section of the American Chemical Society, Norwich University, 1996. *
157. "Multi-Media and the Internet in Chemical Education: Design, Implementation, and Evaluation," Rochester Institute of Technology, Rochester, NY, 1996. *
158. "Photoinduced Electron Transfer in Extended Molecular Systems: New Materials for Optical Switching and Light Harvesting," Meeting of the Susquehanna, PA section of the American Chemical Society, Wilkes-Barre, PA, 1995.
159. "Light Harvesting: from Green Plants to the Perfect Picture," Meeting of the Binghamton, New York Section of the American Chemical Society, Binghamton, NY, 1995.
160. "Multi-Media and the Internet in Chemical Education: Design, Implementation, and Evaluation," Pace University, New York, NY, 1995. *
161. "Phase Modulated Voltammetry in Organometallic Photochemistry," University of Rochester, Rochester, NY, February 1995.
162. "Multi-Media in the Distance Learning Environment," New Dimensions for Teaching and Learning Symposium, SUNY-Office of Educational Technology, March, 1995.
163. "The Multi-Media Lecture Podium: An Experiment in Introductory Chemistry," Binghamton University Council, January, 1995.
164. "The Design of Lectures for the Multi-Media Podium," Binghamton University Computer Center Tutorial, January, 1995.
165. "PMV in Organometallic Photochemistry: New Information for the Design of Electron Transfer Catalysts," Colgate University, Hamilton, NY, November 1994.
166. "Macromolecular Assemblies for Light Harvesting and Artificial Photosynthesis," Queens College, New York, NY, October 1994.
167. "Phase Modulated Voltammetry of Excited Inorganic Complexes," ACS Northeast Regional Meeting, Burlington, VT, June 1994.
168. "Intramolecular Electron and Energy Transfer in Transition Metal Functionalized Polymer Assemblies," University of Texas-Austin, Fall 1992.
169. "Intramolecular Donor-Acceptor interactions involving derivatized MLCT excited states of Ru^{II}," Saint Michael's College, Winooski, VT, Spring 1991.*
170. "Intramolecular Charge Separation in Chromophore-Donor-Acceptor Complexes of Ru and Re," American Chemical Society National Meeting, Boston, MA, Spring 1990.

*Invitation to 4-year college for Graduate Recruiting.

Other Presentations

1. "Inorganic-Organic Hybrid Solar Cells," Materials Research Society, Boston, MA, 2009.
2. "Temperature Dependent Photophysics of Ru (II) Complexes with Hemilabile Ligands: New Materials for Chemosensory Receptors," ACS National Meeting, Orlando, FL, 2002.
3. "Photochemistry and Photophysics of Hemi-labile ligand complexes," ACS National Meeting, Orlando, FL, 2002.
4. "A Fiber Templating Approach to Conducting Polymer Tubes," ACS National Meeting, Boston, MA, 2002.
5. "Transition Metal Complexes with Hemilabile Ligands: Receptors for Conjugated Polymer Chemosensors," ACS National Meeting, Chicago, IL, 2001.

6. "Inorganic Materials Education: Modifications for Life Long Learning," ACS National Meeting, San Diego CA, 2001.
7. "Conjugated Polymer Chemosensory Materials: Field Detection of Transition Metal Ions via Fluorescence Quenching," ACS National Meeting, San Diego CA, 2001.
8. "Electronic Polymer Cladding of Optical Fiber Sensors," DOD-MURI program review meeting, Philadelphia, PA, 2000.
9. "Electrostatically Generated Nanofibers of Electronic Polymers," ACS National Meeting, Washington, DC, 2000.
10. "Transition Metal Excited State Dynamics in Highly Sensitive Fluorescent Chemosensor Applications," ACS National Meeting, San Francisco, CA, 2000.
11. "Chemical Analysis of Underfill Degradation Mechanisms," Universal Instruments, Kirkwood, NY, 2000.
12. "Nanofiber Electronics: A Single Fiber Approach," University of Pennsylvania, Philadelphia, PA, 2000.
13. "Conjugated Polymers Containing Pendant Terpyridine Receptors: Highly Efficient Sensory Materials for Transition Metal Ions," SPIE, Boston, MA, 1999.
14. "Conjugated Polymer Architectures Containing Pendant Receptors: Highly Efficient Sensory Materials for Transition Metal Ions," ISPPCC, Lipari, IT, 1999.
15. "Hybrid Polymers for Electronics Packaging Passive Component Devices," Technical Advisory Board Meeting, Binghamton, NY, 1999.
16. "The HMChem Learning Workshop," ACS National Meeting, Anaheim, CA, 1999.
17. "2-Dimensional Architectures for Studying the Photophysical Properties of Inorganic-Organic Hybrid Polymers," MRS National Meeting, Boston, MA, 1998.
18. "Transmissive Conducting Polymers Containing Transition Metal Functionalized Chromophores," ACS, Spring Meeting, Dallas, TX, 1998.
19. "Conjugated Polymers Containing Pendant Terpyridine Complexes As Photoactive Sensors," Materials Research Society, Fall Meeting, Boston, MA, 1997.
20. "Design and Synthesis of New Conjugated Porphyrin Copolymers for Optical-Electronic Applications," Materials Research Society, Fall Meeting, Boston, MA, 1997.
21. "Synthesis and Characterization of Conjugated Metalloporphyrin Copolymers for Electron Transfer Applications," Spring ACS National Meeting, San Francisco, CA, 1997.
22. "Synthesis and Characterization of a Conjugated Copolymer of Polyphenylene Vinylene Containing Metalloporphyrins Incorporated into the Polymer Backbone," MRS Meeting, Boston, MA, 1996.
23. "Photoconductivity Switching in Transition Metal Based Conducting Polymer Blends," Platinum Group Metals Conference, The Royal Society of Chemistry, July 21, 1996, York, England.
24. "Photoconductivity Switching in Transition Metal Based Conducting Polymer Blends," Platinum Group Metals Conf., Royal Society of Chemistry, July 21, 1996, York, England.
25. "Excited State Electron Transfer in Transmissive Conductive Polymer Blends Containing Transition Metal Chromophores," Spring ACS National Meeting, 1996, New Orleans, LA.
26. "Solvent Dynamics in Odd-Electron Organometallic Complexes," Spring ACS National Meeting, 1996, New Orleans, LA.
27. "Preparation, Isolation, and Characterization of Pt-2,2'-bipyridine triflate Intermediate," Spring ACS National Meeting, 1996, New Orleans, LA.

28. "Multi-Media and the Internet in Chemical Education," Spring ACS National Meeting, 1996, New Orleans, LA.
29. "Direct Electrochemical Investigations of Odd-Electron Complexes of W, Mo, and Cr," Fall ACS National Meeting, 1995, Chicago, IL.
30. "Computers in the Advanced Inorganic Laboratory: An Iterative Approach to Learning," Fall ACS National Meeting, 1995, Chicago, IL.
31. "Design of a Multi-Media Lecture Podium and Its Implementation into the Chemistry Curriculum," Fall ACS National Meeting, 1995, Chicago, IL.
32. "Direct Electrochemical Investigations of Short Lived Organometallic Complexes," Organometallic Gordon Research Conference, 1995, Salve Regina College, Newport, RI.
33. "Transient Electrochemistry of 17-electron Transition Metal Radicals of W and Mo," Spring ACS National Meeting, 1995, Anaheim CA.

Current and External Pending Support

Current & Pending Support: Dr. Wayne Jones			
All work done at Binghamton University			
<u>Project Title</u>	<u>Sponsor</u>	<u>Total Award (incl. IDC)</u>	<u>Person-months</u>
Current: Decontamination of Toxic Agents Using Nanofibers	US Army Research Office Dates: 07/01/13-06/30/16	\$340,592	0.48 summer months
Current: Nanomaterial Conducting Polymer Composites for Activated Charge Release	DOD (w/Battelle Corp.) Dates: 9/01/15-8/31/16	\$129,256	0.5 summer months/year
Current: Multidisciplinary GAANN in Smart Energy Materials	Department of Education: Graduate Assistantships in Areas of National Need (GAANN) Dates: 07/01/13-6/30/15	\$640,376	0.5 summer months/year
Current: Thermally Stabilized Nanoparticle Dye Materials for Passive Solar Technologies	Technology Accelerator Fund (TAF) NYS RF Dates: 09/01/14-08/31/15	\$50,000	
Current REU Site: Solar Energy - Renewable Energy Generation and Storage	NSF Dates: 04/15/13-03/31/16 <i>Renewal Pending through 3/31/19</i>	\$312,000	0.5 summer months/year
Current: Scholarship and Nanofabrication	NSF	\$638,865	1 academic month / year

Experience: Successful Transitions from Community College to Graduate School	Dates: 09/01/13-08/31/18		
Current: Thermally Stabilized Dyes for Optical Applications	NY-NEXXUS program Dates: 12/01/14-12/30/15	40,000	0 summer months
Current: SBIR Phase I: Thermally Stabilized Dyes in High Glass Transition Plastics for Optical Filtering	ChromaNano Tech (NSF SBIR) Dates: 01/01/16-06/30/17	\$133,916	0.4 summer month
Pending: SNM: Roll-to-roll manufacturing of nanowires and devices on flexible substrates	NSF Dates: 01/01/16-12/31/18	\$1,155,697	1 summer month/year

Wayne E. Jones Jr.	
Prior Support	
Project/Proposal Title: Nanofiber Catalyst Supports and Solution-Based Processes for Deposition of Catalytic Metals and Metal Oxides	
Source of Support: ACS/PRF	
Award Amount: \$135,000	Period Covered: 01/01/07 – 08/01/10
Person-Months Committed to the Project:	Acad: .5 Summ: 1
Project/Proposal Title: Transparent Conducting Oxides for Solar Energy Generation and Storage	
Source of Support: NASA/CASP	
Award Amount: \$85,000	Period Covered: 1/1/10 – 12/31/10
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 0.5 Summ: 0.5
Project/Proposal Title: A Multidisciplinary introduction to Microfabrication	
Source of Support: NSF CCLI program	
Award Amount: \$200,000	Period Covered: 3/1/10 - 12/31/12
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 0.5 Summ: 0.5
Project/Proposal Title: Acquisition of a 650 MHz NMR spectrometer	
Source of Support: NSF MRI	
Award Amount: \$550,584	Period Covered: 9/1/09 - 12/31/11
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 0 Summ: 0
Project/Proposal Title: Transparent Conducting Thin Films on Flex	
Source of Support: CAMM	
Award Amount: \$40,000	Period Covered: 7/1/10 - 6/31/11
Location of Research: SUNY at Binghamton	

Person-Months Committed to the Project: Acad: 0 Summ: 0.5 Project/Proposal Title: IEEC Packaging Materials Database (PMD) Source of Support: IEEC Award Amount: \$45,000 Period Covered: 7/1/10 - 6/31/11 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0 Summ: 0.5
Project/Proposal Title: The Go Green Institute Source of Support: CSSNY – Work Force Development Award Amount: \$64,584 Period Covered: 4/1/10 - 12/31/10 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0 Summ: 0.5
Project/Proposal Title: Transuranic Aqueous Metal Ion Sensor Systems (PI w/Sammakia, Park, Wu as Co-PI's) Source of Support: NNSA Award Amount: \$339,400 Period Covered: 9/1/04 – 9/1/07 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0.5 Summ: 0.5
Project/Proposal Title: Nanostructure Enhanced Thermal Interface Materials for the Next Generation of Electronic Packages (PI with B. Sammakia and G. Subbarayan, Purdue University as Co-PI's) Source of Support: Semiconductor Research Corp. Award Amount: \$351,000 Period Covered: 07/01/02-12/30/05 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: .5 Summ: .5
Project/Proposal Title: Design, Characterization, and Implementation of Thermal Management Materials (joint with General Electric Inc. and B. Sammakia, and G. Lehman at Binghamton) Source of Support: NIST - ATP Award Amount: \$803,148 (Binghamton Portion) Period Covered: 1/1/03-12/31/05 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0 Summ: 0.5
Project/Proposal Title: Nanophone- application of nanotechnology to create the world's smallest microphone. (w/R. Miles) Source of Support: Toyota Corporation/Foundation Award Amount: \$235,288 Period Covered: 3/1/04 - 2/28/06 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0 Summ: 0
Project/Proposal Title: SThM Analysis of Active Circuit Components Source of Support: Boeing Corporation Award Amount: \$10,050 Period Covered: 06/01/04-12/30/04 Location of Research: SUNY at Binghamton Person-Months Committed to the Project: Acad: 0 Summ: 0
Project/Proposal Title: Thermal Analysis and Modeling Based on Scanning Thermal Microscopy (SThM) (joint with G. Lehman)

Source of Support: NSF/IEEC/NYS Award Amount: \$64,000 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 7/1/04 - 6/31/05 Acad: 1 Summ: 0.5
Project/Proposal Title: Nanotechnology in Undergraduate Education (PI w/M. S. Whittingham) Source of Support: NSF - NUE 0304465 Award Amount: \$100,000 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 06/01/03-12/30/04 Acad: .5 Summ: .5
Project/Proposal Title: Infotonics Technology Center: Elimination of Hermetic Packaging for MEMS Mirrors by Using Protective Ceramic/SAM Bilayer Coatings (Co-PI with J. Cho, S. Oliver, B. Sammakia) Source of Support: DOE (DE-FG02-02ER63410) Award Amount: \$125,881 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 08/01/02-06/31/04 Acad: .2 Summ: 0
Project/Proposal Title: Scanning Thermal Microscopy of Nanomaterial Composites Source of Support: General Electric Corp. Award Amount: \$40,000 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 06/01/03-05/30/04 Acad: .5 Summ: 0
Project/Proposal Title: Chemical Analysis Source of Support: Analog Devices Inc. Award Amount: \$4,809 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 7/25/02-7/24/03 Acad: .2 Summ: 0
Project/Proposal Title: Metal Organic Polymers for Detection of Toxic Metals. Source of Support: National Institutes of Health (NIH 1R15ES10106-01) Award Amount: \$112,425 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 6/1/00 - 03/31/03 Acad: 1 Summ: 0
Project/Proposal Title: An Integrated University/Industry Materials Science Graduate Program in Electronics Packaging (w/E. Cotts) Source of Support: NSF-DMR (DMR 9976713) Award Amount: \$316,000 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 9/1/99 – 8/31/03 Acad: 1 Summ: 0.5
Project/Proposal Title: In Situ Deposition of Conducting Polymers Containing Transition Metals Source of Support: DOD Army Research Office (Sub-Contract) Award Amount: \$30,000 Location of Research: SUNY at Binghamton Person-Months Committed to the Project:	Period Covered: 9/1/00 - 1/1/02 Acad: 0 Summ: 0
Project/Proposal Title: Atomic Scale Imaging Instrumentation: Hands on Visualization for Undergraduate Education. Source of Support: NSF-CCLI (A&I) (CCLI 9952628)	

Award Amount: \$111,297	Period Covered: 6/1/99 - 12/31/01
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 0 Summ: 1	
Project/Proposal Title: Chemical Degradation Paths to Underfill Adhesion	
Source of Support: Universal Instruments Corp.	
Award Amount: \$80,181	Period Covered: 1/1/99 - 12/31/00
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: .5 Summ: 0.5	
Project/Proposal Title: Accessibility: The Next Step for Instruction in Science Education. (w/J. Dix)	
Source of Support: Houghton Mifflin Inc., Cubic Science Inc.	
Award Amount: \$400,000	Period Covered: 6/1/96 - 8/31/00
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 0 Summ: 1	
Project/Proposal Title: Electron Transfer Dynamics and Solvation in Transition Metal Radicals	
Source of Support: ACS-PRF Type AC	
Award Amount: \$50,000	Period Covered: 3/97 - 9/99
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 1 Summ: 0	
Support: Current	
Project/Proposal Title: Pendant Solvent Cyclopentadienyl Complexes (w/ P. Tanner)	
Source of Support: ACS-PRF SRF	
Award Amount: \$5,000	Period Covered: 1/97 - 12/98
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 0 Summ: 0	
Support: Current	
Project/Proposal Title: Pulsed EPR System (w/D. Doetschman PI)	
Source of Support: NSF-Instrumentation	
Award Amount: \$481,540	Period Covered: 1/1/95 - 12/31/98
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 1 Summ: 0	
Project/Proposal Title: Photoinduced Charge Separation in Transmissive Conducting Polymer Matrices. (w/S. Higgins, University of Liverpool)	
Source of Support: NATO	
Award Amount: \$5,350	Period Covered: 1/1/97 - 12/31/99
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 1 Summ: 0	
Project/Proposal Title: Electron Transfer and Solvation Dynamics in Odd-Electron Transition metal Complexes (w/P. Tanner)	
Source of Support: ACS-PRF SRF	
Award Amount: \$6,500	Period Covered: 5/1/99 - 12/31/99
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Acad: 0 Summ: 0	
Project/Proposal Title: Sciences Across the Curriculum (Co-P.I. w/Tricomi and Tan-Wilson)	
Source of Support: NSF-Institution Wide Reform Initiative	

Award Amount: \$199,850	Period Covered: 1/1/97 - 12/31/99
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Support:	Acad: 1 Summ: 0 Current
Project/Proposal Title: Development of Novel Transition Metal Sensitized X-Ray Film Materials (w/E. Cotts)	
Source of Support: Anitec Inc. (DOD)	
Award Amount: \$110,000	Period Covered: 9/1/95 - 12/31/98
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project: Support:	Acad: 0 Summ: 0 Current
Project/Proposal Title: Characterization of Conducting Polyphosphacetylenes	
Source of Support: Sandia National Labs-DOE	
Award Amount: \$25,000	Period Covered: 8/94 - 7/95
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 1 Summ: 1
Project/Proposal Title: Molecules to Materials Lab Design (w/M. S. Whittingham)	
Source of Support: NSF ILI-LLD	
Award Amount: \$99,986	Period Covered: 9/94 - 5/97
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 1 Summ: 0
Project/Proposal Title: Phase Modulated Voltammetry of 17-electron complexes	
Source of Support: ACS-PRF Type G	
Award Amount: \$20,000	Period Covered: 9/94 - 8/96
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 1 Summ: 1
Project/Proposal Title: Interactive Electronic General Chemistry (w/ J. Dix, R. Allendoerfer)	
Source of Support: NYS-Office of Educational Technology	
Award Amount: \$110,000	Period Covered: 5/96 - 6/98
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 1 Summ: 1
Project/Proposal Title: Unrestricted Research Support on Photoinduced Electron Transfer	
Source of Support: Anitec Inc.	
Award Amount: \$11,000	Period Covered: 7/95 - 6/97
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 1 Summ: 0
Project/Proposal Title: Interactive Electronic General Chemistry (w/ J. Dix)	
Source of Support: McGraw Hill Inc.	
Award Amount: \$25,000	Period Covered: 5/96 - 12/96
Location of Research: SUNY at Binghamton	
Person-Months Committed to the Project:	Acad: 0 Summ: 0

External Collaborators

Research

Prof. Michael Wolf	University of British Columbia
Prof. Thomas Keane	Sage College
Prof. Michael Haggerman	Union College
Prof. Ganesh Subbarayan	Purdue University, School of Engineering
Prof. Baghat Sammakia	Binghamton University, Watson School of Engineering
Prof. Junghyun Cho	Binghamton University, Watson School of Engineering
Prof. Peter Borgesen	Binghamton University, Watson School of Engineering
Prof. Justin Briggie	East Texas Baptist College
Prof. Clifford Timpson	Roger Williams College
Prof. Jetty Duffy-Matzner	Augustana College

Education

Prof. James Dix	Binghamton University
Prof. Anna Tan-Wilson	Binghamton University
Prof. Nancy Stamp	Binghamton University

Research Students Advised

Undergraduate:	Stephen Gross	(BS 1996)	Honors Thesis
	Daryl Bosco	(BS 1996)	Honors Thesis
	Gennady Dantsin	(BS 1996)	
	Stuart Kessler	(BS 1996)	
	Todd Francone	(BS 1997)	
	Ian Rusinoff	(BS 1997)	
	Eva Lee	(BS 1997)	
	Han Kim	(BS 1998)	
	Patty Lam	(BS 1998)	
	David Grosfeldt	(BS 1998)	Honors Thesis
	Jane Snyder	(BS 1999)	
	Ajit Gubbi	(BS 2000)	
	Genya Kostereva	(BS 2000)	
	Tony Ho	(BS 2000)	Honors Thesis
	Jesse Afriyie	(BS 2000)	
	Henry Ngyun	(BS 2000)	
	Frank Cease	(BS 2000)	
	Adam Pristera	(BS 2001)	Honors Thesis
	Gaurav Malhotra	(BS 2001)	Honors Thesis
	Scott Gilje	(BS 2002)	Honors Thesis
Rob Praga	(BS 2002)		
Trevor Jenkins	(BS 2002)		
Kristyn Pluchino	(BS 2003)	Honors Thesis	
Verrad Nyame	(BS 2004)	Honors Thesis	
Kat Minerly	(BS 2004)		
Yi-hsieng Lin	(BS 2005)		
Aleks Ontman	(BS 2005)		

Ari Atkinson	(BS 2005)	Honors Thesis
Sudhindra Prasad	(MS-Eng 2005)	
Christopher Sgro	(BS 2005)	
Jean Gaffney	(BS 2006)	Honors Thesis
Anna Gandelman	(BS 2006)	
Jessica Hoy	(BS 2006)	
Jonathan Groden	(BS 2006)	
Christina Hwang	(BS 2006)	
Wes Sattler	(BS 2007)	Honors Thesis
Aaron Sattler	(BS 2007)	Honors Thesis
James Corcoran	(BS 2007)	
Kevin Cho	(BS 2007)	Honors Thesis
Gavin Richards	(BS 2008)	
Roz Najafabadi	(BS 2009)	Honors Thesis
Sana Ahmed	(BS 2009)	
Justin Che	(BS 2009)	Honors Thesis
Edwin Johnson	(BS 2009)	Honors Thesis
Brian Snyder	(BS 2009)	Honors Thesis
Elayna Weller	(BS 2009)	Honors Thesis
Jessica Rivera	(BS 2009)	
Zachary Logozio	(BS 2010)	Honors Thesis
William Harrigan	(BS 2010)	Honors Thesis
Nancy Lai	(BS 2010)	Honors Thesis
Dan Mahone	(BS 2010)	Honors Thesis
Eric Murawaski	(BS 2010)	
Diana Faustino	(BS 2010)	Honors Thesis
Adam Cohen	(BS 2011)	
Shawn Cohen	(BS 2011)	
Kirill Lebednev	(BS 2011)	
Megan Scofield	(BS 2011)	
Pamela DeMayo	(BS 2011)	
Timothy Obrien	(BS 2012)	
Abigail Oakes	(BS 2012)	Honors Thesis
Lilia Karam	(BS 2012)	
Kate Raiti-Palazzolo	(BS 2012)	
Victoria Gornopolskaya	(BS 2012)	
Natalya Gornopolskaya	(BS 2012)	
Steven Kadylak	(BS 2012)	
Steven Murphy	(BS 2012)	Honors Thesis
Deborah Katz	(BS 2012)	
Sarah Dill	(BS 2013)	Honors Thesis
Davis Anugo	(BS 2013)	
Bo Song	(BS 2013)	Honors Thesis
Nicholas Ravvin	(BS 2014)	
Manar Alherech	(BS 2014)	Honors Thesis
Aaron Taggart	(BS 2014)	Honors Thesis

Kevin Fischer	(BS 2014)	
Christine Spilka	(BS 2014)	
Hakeem Henry	(BS 2014)	
Tyler Pluchino	(BS 2015)	Honors Thesis
John Condolucci	(BS 2015)	Honors Thesis
Kevin Seidler	(BS 2015)	
Sandy Zhang	(BS 2015)	Honors Thesis
Julia Tollin	(BS 2015)	Honors Thesis
Michael Cowan	(BS 2015)	Honors Thesis
Agatha Ambrozy		
Matthew Ehrlich		
Jennifer Troiano		
Laura Sonnenberg		
Kishwana Kareem		
Aurelie Noreiba		
Kevin Fisher		

Elizabeth Seok	(high school student)
Tony Furst	(high school student)
Brian King	(high school student)
Sailesh Sahay	(high school student)
Vivian Ferry	(high school student)
Thomas Noriega	(high school student)
Stephen Zelno	(high school student)
Kristin Pueschel	(high school student)
Anthony Cannino	(high school student)
Jay Shaw	(high school student)
Christopher Madl	(high school student)
Christine Chen	(high school student)
Raka Kumbhakar	(high school student)
Sharon Hartzell	(high school student)
Rose Bernier	(high school student)
Eamon Reynolds	(high school student)

Graduate: (*Ph.D. students)

Current

Danielle McCarthy*
 Steven Boyer*
 Anting “Amy” Chen*
 Linyue “Vicky” Tong*(MSE)
 Wei Wu*
 Ziqi Qing (MSE)
 Boxia Li (MSE)
 Brendan Hughes (joint with McGrady)
 Derek Dwyer (joint with McGrady)

Former students

- Jian Liu, "Fabrication, Optimization and Functionalization of Electrospun TiO₂ Nanofibrous Materials for Use in Photodegradation of Environmental Toxins." Ph.D. Chemistry, 2015.
- Kenneth Skorenko, "Fabrication of Solid State Dye Sensitized Solar Cells Utilizing Vapor Phase Polymerized PEDOT Hole Conducting Layers." PhD Chemistry, 2015.
- Megan Fegley, "Investigation of Fluorescent Conjugated Polymer Chemosensors for the Detection and Differentiation of Iron Cations" PhD Chemistry, 2014.
- Akhil Segal, MA Chemistry, 2013.
- Emilly Obuya, "The Design, Synthesis, and Fabrication of TiO₂ Nanofibers for Catalysis and Environmental Remediation." Ph.D., Chemistry, 2012.
- Eliud Mushibe, "Design and Fabrication of Polymer Nanocomposite with Conducting Fillers for Electronic Materials." Ph.D., Chemistry, 2012.
- Peter Kariuki, "Conducting polymer and transition metal based thin films for hybrid Inorganic/Organic Photovoltaics," Ph.D., Chemistry, 2011.
- Sherryllene Pinnock, "Investigating the Photophysics OF Fluorescent Conjugated Polymer Chemosensors in the Solid State", Ph.D., Chemistry, 2011.
- Jessica Rivera, "A Spectroscopic Study of a RiboFlavin-Molybdenum(V) Complex with Indole/Pyrrole," MS, Chemistry, 2011.
- Jessica Gendron, "Development of Doped Zinc Oxide as a Transparent Conducting Electrode for Use in Solar Cells," MS, Chemistry, 2010.
- Dickson Andala, "Metal Oxide Nanostructures as Catalyts Supports from Electrospun Nanofibers," Ph.D., Chemistry, 2010.
- Azita Eshragi, "Characterization of Fluorescent Conjugated Polymer Sensors with Varying Percentage Loading of Dipyrrolequinoxaline Receptors for the Detection of Fluoride and Cyanide Ions," MS, 2010.
- Jue kang Liu, MA, May 2010.
- Catherine Malele, "Fluorescent Conjugated Polymer Chemosensors," Ph.D., Chemistry, 2009. Visiting Assistant Professor, Utica College.
- Jasper Chiguma, "Conducting Polymer Nanocomposites Loaded with Nanotubes and Fibers for Electrical and Thermal Applications," Ph.D., Materials Science, 2009.
Currently a post-doctoral fellow Binghamton University Advanced Diagnostics Lab, S3IP.
- Wenrong Gui, "Design of Fluorescent Conjugated Polymer Chemosensors," MA, 2009.

- Lisheng Feng, MA, 2009.
- Justin Martin, "Construction of Self-Assembled Inorganic Interfaces as a Method for Tuning Conducting Polymer Thin Film Sheet Conductivity," Ph.D., 2007.
Currently a post-doctoral fellow at the USDA.
- Frederick Ochanda, "Design and Fabrication of Nanostructured Materials from Electrospun Fiber Templates," Ph.D., 2007.
Currently a post-doctoral fellow at Corning Incorporated.
- Lijuan Fan, "Design, Synthesis and Photophysics of Fluorescence Turn-on Conjugated Polymer Chemosensors," Ph.D., 2006.
Currently on the faculty at Soochow University, PRC.
- Hong Dong, "Polymer Fiber Templates for the Preparation of Coaxial Fibers and Tubes, and as Metal Nanoparticle Supports," Ph.D., 2005.
Currently a post-doctoral fellow at Cornell University.
- Kat Minerly, "Polymer Nanomaterials for Applications in Sound and Pressure Sensing," MS, 2005. (Materials Science 3/2)
Applying to medical school in CA.
- Sarah Angell, "Ruthenium II Bipyridyl Complexes Containing Hemilabile Ligands and Fluorescent Conjugated Polymers as Small Molecule Sensors," MS, 2005.
Currently teaching high school on Long Island.
- Matthew Parker, "Rational Design and Synthesis of Fluorescent Conjugated Polymer Sensors," MS, 2005.
Currently a Ph.D. candidate at the University of Pittsburgh.
- Cliff Murphy, "Probing Forster and Dexter Energy Transfer Mechanisms in Fluorescent Conjugated Polymer Chemosensors," Ph.D., 2004.
Currently an assistant professor, Roger Williams University, RI.
- Yan Zhang, "Synthesis and Design of Conjugated Polymer Chemosensors," Ph.D., 2003.
Currently a post-doctoral fellow at the South Dakota School of Mines.
- David Sarno, "Molecular Design of Ordered Transition Metal Thin Film Interfaces by Coordination Chemistry and Self-Assembly," Ph.D., 2003, MAT, 1998.
Currently a faculty member at Queens Community College.
- Szu-Wei "Steve" Yang, "Conjugated Hybrid Inorganic-Organic Polymers for Electronics Applications," Ph.D., 2002.
Currently a post-doctoral fellow with David Doetschman at Binghamton University.
- Benjamin Burton, "Catalytic Copper (II) Bipyridine Complexes in Conducting Polymer Matrices: Sensors for Nerve Agents," MS, 2002, MAT, 2001.
Currently employed as a chemist at Proctor and Gamble, Norwich, NY.

Leone Hermans,* "Photoinduced Electron Transfer in Conjugated Donor Acceptor Polymers" Ph.D., 2000.

"Synthesis and Characterization of Polyphosphaacetylenes," MS, 1995.

Currently employed at Bayer Corp., Pittsburgh, PA.

Denis Barbini, "Spectroscopic and Electrochemical Characterization of Group 6 Organometallic Odd Electron complexes," Ph.D., 2003.

Currently employed at Vitronic Soltec Inc. in New Hampshire.

Christopher Turock, "Increased Sensitivity of Silver Bromide Photographic Emulsions upon the Addition of Ruthenium (II) Metal to Ligand Charge Transfer Complexes," MS, 1997.

Currently employed at Rainbow Displays Inc. Binghamton, NY.

Scott Bailey, "Excited State Electron Transfer in Ruthenium Terpyridine Polymer Films at Superconducting Interfaces: A Photoactive Switch," MA, 1997.

Currently employed at Hirion Corp.

Brian Watts, "Incorporation of Indium Tin Oxide Electrodes in Photomodulated Voltammetry," MA 1998, MAT, 1997.

Currently employed at Schenectady High School.

Biwang Jiang, "Rational Design Synthesis and Characterization of Chromophore Functionalized Conjugated Polymers," Ph.D., 1998.

Currently employed as a research scientist at Rohm and Haas Corp.

Post-Doctoral and Senior Lab Associates

Dr. John Lemmon, 1995-96

Dr. Pamela Tanner, 1995-1997

Dr. Milissa Bolcar, 1997-1998

Dr. Gerald Janauer, 1998-1999

Dr. Brendan Flynn, 2002- present

Dr. Ed Fey, 2003-2005

Dr. Cliff Timpson, 2005

Dr. Jetty Duffy-Matzner, 2010-2011

Dr. William Bernier, 2012- present

Dr. Jennifer Amey, 2014-present

Internal Examiner

Undergraduate Honors Theses

Mark Mamac, BS, 1998

Lynnette Cegelski, BS, 1998

John Wang, BS, 1999

Sumit Chatterjee, BS, 1999

David Lansky, BS, 2001

Lisa Israel, BS, 2001

Jane Sohn, BS, 2003

Matthew Parker, BS, 2003
Tsz Y. "Eric" Chan, BS, 2005
Wui Ip, BS, 2006
Aaron Sattler, BS, 2008
Wes Sattler, BS, 2008
Anas Almaletti, BS, 2009
Elizabeth Tiberio, BS, 2010
Dan McCurry, BS, 2011
Mark Lee, BS, 2012
Nuri Tchah, BS, 2012
Abbigail Oakes, BS, 2012
Steven Murphy, BS, 2012

Masters Theses

Curtis Weeks, MS, 1997
Jack Fox, MS, 1997
Richard Edsall, MS, 1999
Christopher Turock, MS, 2002
Steven Borneman, MS, 2004
Corey Mitchel, MS 2015

Ph.D. Theses

Yi Han, Ph.D., 1997
Bert Grygiel, Ph.D., 1997
Gerald Janauer, Ph.D., 1997
Ronji Chen, Ph.D., 1998
Tom Chirayil, Ph.D., 1998
Joseph Alilla, Ph.D., 1998
Greg Moore, Ph.D., 1999.
Anne Scutt, Ph.D., 1999
Nicholas Dunwoody, Ph.D., 1999
Fan Zhang, Ph.D., 1999
Vladimir Jakubek, Ph.D., 2000
Ryan Sun, Ph.D., 2002
David Gilbert, Ph.D., 2002
Douglas Green, Ph.D., 2002
Zhengtao Zhu, Ph.D., 2002
Frederick Owuor, Ph.D., 2002
John Gitua, MS 2003, Ph.D., 2005
Peter Otieno, Ph.D., 2003
Anastasia V. Murphy, Ph.D., 2004
John Gitua, Ph.D., 2005
J. Katana Ngala, Ph.D., 2005
Matthew Maye, Ph.D., 2005
Nancy Kariuki, Ph.D., 2005
Samuel Lutta, Ph.D., 2005
Rastko Vasilic, Ph.D., 2006

Chrispin Kowenje, Ph.D., 2006
Anand Desai, Ph.D., 2007, Engineering
Paul Fregene, Ph.D., 2007
Chen Chen, Ph.D., 2008
Charles Kanyi, Ph.D., 2008
Barry R. Jones, Ph.D., 2008
Onduro Odongo, Ph.D., 2008
Derrick Mott, Ph.D., 2008
Anand Desai, Ph.D., 2008, Engineering
Chunmei Ban, Ph.D., 2009
Ashok Pachamuthu, Ph.D., 2010, Engineering
Megan Rapollo, Ph.D., 2010
Maurice Odago, Ph.D., 2010
Kaikun Yang, Ph.D., 2010, Engineering
Mark Schadt, Ph.D., 2010
Elizabeth R. Sierra-Zarella, 2010, Philosophy external
Min Hong Lee, 2011
Joe Weiss, 2012 Engineering[†]
Langli Luo, 2012, Engineering
Martha Kamundi, 2013
Kun Yu, PhD 2014
Joe Weiss, Engineering, MS 2013
Thomas Zengeya, PhD 2014
Oluwatoyosi Muse, PhD 2014
Loriana Valentin, PhD 2014
Langli Luo, Engineering, PhD 2015
Shijun Yu, Engineering, 2015
Fred Wafula, PhD 2015
Sharon Ramsey, EdD 2015
Yongshi Li[†]

([†]preliminary oral exam)

Reviewing and Consulting

Journals - *Proceedings of the National Academy of Science*
Journal of the American Chemical Society
Journal of Physical Chemistry
Inorganic Chemistry
Chemistry of Materials
Journal of the Chemical Society, Dalton Transactions
Journal of the Chemical Society, Chemical Communications
Applied Physics Letters
Applied Polymers
Inorganica Chimica Acta
Synthetic Metals

Macromolecules
Electrochimica Acta
Journal of Organometallic Polymers

- Proposals - Petroleum Research Fund - ACS
National Science Foundation
NSF CCLI Panelist, 1998-present
NSF CCLI Panel Review Chair, 2002
National Institute of Health – Panelist NIEHS
Research Corporation
Department of Energy
Department of Education
- Consulting - Sandia National Laboratories
Rainbow Displays Inc.
New York State, Department of Education
Universal Instruments Inc.
Analog Devices Incorporated
Sigma-Aldrich Chemical Corporation
Photoprotective Technologies Inc.
Spectronic Instruments
Houghton-Mifflin Inc.
Wiley Inc.
Archipelaego Productions
J&K Contractors, Binghamton, NY

Professional Service

Chair, American Chemical Society, Committee on Committees, 2014-present.
Program Chair, American Chemical Society, Chemical Education Division, 2014-2015.
Chair, American Chemical Society, Membership Affairs Committee, 2010-2013.
Board of Trustees, ACS Insurance Trust, 2010-2012.
NSF Review Panel member, Chemical Measurement and Instrumentation, Fall 2011.
Program Co-Chair, Division of Chemical Education, American Chemical Society
Chair, NSF TUES Review Panel, Washington, DC, Summer 2010.
Treasurer, Northeast Region of the American Chemical Society, 2008-present.
Chair, NSF CCLI Review Panel, Washington DC, Summer 2009.
Co-Program Chair, Division of Chemical Education, American Chemical Society National Meeting, Chicago, Spring 2007.
Guest Editor, Special Issue of *Journal of Educational Technology Systems*, Fall 2006.
General Chair, NERM 2006, American Chemical Society, Binghamton, NY, October 5-7, 2006.
Guest Editor, Special Issue of *Journal of Educational Technology Systems*, Fall 2005.
Symposium Co-Chair, “Nanotechnology in Chemistry: A State of the Art Symposium,” American Chemical Society National Meeting, Anaheim, CA, Spring 2004.
Symposium Chair, “Molecular Level Devices,” North East Regional Meeting (NERM), American Chemical Society, Rochester, NY, 2004.

Symposium Co-Chair, "Advances in Materials Education," Materials Research Society National Meeting, Spring 2004.

Chair, Local Section Assistance and Development sub-committee, Local Section Activities Committee (LSAC), American Chemical Society, 2003-present.

External Evaluator, James McCarran, Ph.D. Thesis Defense, University of Rochester, Fall 2002.

Symposium Co-Chair, "Nanofiber and Nanowire Materials," jointly sponsored by the Polymer Division and the Polymer Materials Science and Engineering Division, American Chemical Society National Meeting, New York, NY, Fall 2003.

American Chemical Society, National LSA Committee member 2002-present.

Organizing Committee, International Conference in Honor of TJ Meyer, Los Alamos National Laboratories, Santa Fe, NM, 2001.

American Chemical Society, Chair, Binghamton Section, 2000.

Organizing Committee Member, 1997 meeting of the International Society for the Study of the Photochemistry and Photophysics of Coordination Compounds (ISPPCC).

Organizing Committee Member, 1998 Spring American Chemical Society National Meeting, *CHED*.

American Chemical Society, Local Section Councilor, 1997-

American Chemical Society, Local Section Awards Chair, 1996-1999.

Coordinator of High school Chemistry Olympiad for Southern Tier Region, 1998.

Judge for National High school Chemistry Olympiad for Southern Tier Region, 1996-.

Facilitator, Conference on Instructional Technologies, SUNY-Oswego, May 1996.

Facilitator, Conference on Instructional Technologies, SUNY-Cortland, May 1998.

NSF Status and Future Developments of Solid State Chemistry and Materials Workshop, 1998.

Department Service

Chair, Chemistry Department 2009-present.

Interim Chair, Chemistry Department, 2007, 2008.

Chair, Chemistry Department Graduate Program Committee, 2005-2009.

Chair, Chemistry Department Undergraduate Program Committee, Fall 1996, 2000-2001.

Chair, Faculty Search Committee, 1995, 1996, 1998, 2004.

Member, Faculty Search Committee, 2000.

Founding Director, Chemistry Department Laser Laboratory, 1993-present.

Mentor for NSF Young Scholars Research Program, 1994-1996.

Member, Chemistry Department Graduate Program Committee, 1996-1999.

Chemistry Department Director of Graduate Admissions, 1996-2000, 2004-2005.

Chemistry Department Undergraduate Program Committee, 1993-1996, 2000-2001.

Chemistry Department Host for ACS shadow program, 1994-1996.

University Service

Chair, Faculty Senate Budget Review Committee, 2014-present

Member, Vice President for Operations Search Committee, 2014.

Chair, Transdisciplinary Areas of Excellence Committee, 2013-present.

Member, Presidential Search Committee, Binghamton University, 2010-11.

Faculty Access to Computing Technologies (FACT) Committee, 2001-present.

Faculty Senate Executive Committee, 2008-2010.

Faculty Senate, Science Representative, 2006-2010.
Faculty Senate Evaluation Coordination Committee, 2008-2009.
Graduate Council, 2008-2012.
Co-Founding Director, Center for Learning and Teaching, 1996-2009.
Member, Vice President for Research Search Committee, 2004-2005.
University Learning Environment Committee, 2006-present.
University Undergraduate Curriculum Committee, 2002-2006.
Co-Chair, Learning Systems Subcommittee of FACT, 2004-2006.
Fellow, College-in-the-Woods, 2001-present.
Steering Committee Member, Institute for Student Centered Learning, 2000-2009.
University Strategic Planning Council, 2003-2005.
Graduate School Strategic Planning Task Force, 2003-2006.
Co-Chair, University Distance Education Committee, 2002-2004.
Faculty Senate, Physical Science Representative, 2000-2002.
Harpur College Council, 2000-2001.
Member, Teaching and Learning Task Force, 1995-1997.
Member, Classroom Environment Committee, 1999-2002
Member, Undergraduate Learning for the New Millenium Task Force, 1998-1999
Founding Director, Center for Learning and Teaching, 1996-
Member, Harpur College Academic Standards Committee, 1994-1996.
Member, Provost's Planning for the Future Meetings, 1995.
Member, Committee for Academic Computing and Educational Technology (CACET), 1996-2001.
Chair, Educational Technology subcommittee of CACET, 1996 -2001.
Member, Harpur College Computing and Technology Committee, 1996-2000.
Mentor in the General Education Program, 1996-1999.
Lecturer in New Faculty Orientation Program, 1997-
Search Committee, Services for Students with Disabilities, 1998.
Member, University Copy Center, Search Committee, 1994.
Computer Center Training Lecture, 1994-95.
Lecturer in Graduate Student Training Program, 1999, 2003

Community and Public Service

Director, Go Green Institute, Binghamton University, Binghamton, NY, 2007-2012.
Science Olympiad Judge, Binghamton University, Binghamton, NY, 2006.
Science Fair Judge, Seton High School, Binghamton, NY, 2005
"Blood Alcohol Laboratory Activity," Seton High School, AP Chemistry Class, Binghamton, NY, 2004-present.
"Career Expo 2004: Careers in Science," BOCES, Binghamton, NY, 2004.
"The Chemistry of Fireworks" Chemistry Demonstration, Owego Free Academy, 2003.
"Careers in Chemistry," Susquehanna Valley Middle School, 2003.
Odyssey of the Mind, Division 2 coach, 2001.
"Atoms in Motion" Chemistry Demonstration, MacArthur Elementary School, 2002.
"Polymers in Motion" Chemistry Demonstration, Blessed Sacrament School, 2002.
"Polymers in Motion" Chemistry Demonstration, Nichols Elementary School, 2002.
Judge for Broome County Science Fair, 2001, 2002, 2003.
Broome County Catholic Schools School Board Task Force, 2001.

Advanced Science and Technology Research Opportunity (ASTRO), 2001.
Odyssey of the Mind, Division 1 coach, 1999-2000.
Chemistry Merit Badge Counselor, Boy Scouts of America, 1997.
Coordinator of Regional Science Olympiad Competition, 1998.
Judge for the Regional High School Science Olympiad, 1994-2000
Chemistry Department Host for the ACS High School Shadow Program, 1994-1999
“Energy is all Around Us Chemical Demonstration Show,” Vestal Hills Elementary School, 1st grade Class, Vestal, NY, March, 1999.
“Energy is all Around Us Chemical Demonstration Show,” Blessed Sacrament Elementary School, 3rd Grade Class, Johnson City, NY, February, 1999.
Visiting Scientist for Career Day, Genny S. Knapp Middle School, Endicott, NY, February 1999.
“What is REALLY COLD? Chemical Demonstration Show,” Blessed Sacrament Elementary School, 2nd Grade Class, Johnson City, NY, January 1998.
Catholic Schools Development Committee, 1998.
Elementary School, 1st grade Class, Johnson City, NY, November 1998.
Host, BCC Business and Russia Program, 1997.
“The Colors of Chemistry: Chemical Demonstration Show,” Blessed Sacrament Elementary School, Kindergarten Class, Johnson City, NY, November, 1995.
“The Colors of Chemistry: Chemical Demonstration Show,” Woodrow Wilson Elementary School, Kindergarten Class, Binghamton, NY, January 1995.
“Energy in Action: Chemical Demonstration Show,” Cub Scout Blue and Gold Banquet, Endicott, NY, March 1996.
Science By Mail Faculty Scholar, 1994.
“Molecules in Motion: Chemical Demonstration Show,” Blessed Sacrament Elementary School, Kindergarten Class, Johnson City, NY, 1994.